

Allow me to present to you a few thoughts bearing on this aspect of our position, and in doing so to confine myself chiefly to the side of science, since my friend Dr. Chauveau, who is to follow, is so much better able to lay it before you from the literary point of view.

Young though our country is, we are already the heirs of the labours of many eminent workers in science, who have passed away or have been removed from this country. In geology, the names of Bigsby, Bayfield, Baddeley, Logan, Lyell, Billings, Hector and Isbister, will occur to all who have studied the geological structure of Canada, and there are younger men like McOuat and Hartley, too early snatched away, who have left behind them valuable records of their labours. In botany and zoology we can point to Michaux, Pursh, Hooker, Shepherd, Bourgeau, Douglas, Menzies, Richardson, Lord and Brunet. These are but a few of the more eminent labourers in the natural history of this country, without mentioning the many living workers who still remain to it; and were it the object of this Society merely to collect and reproduce and bring up to date what these older men have done, it would have no small task before it. But to this we have to add the voluminous reports of the Geological Survey, and the numerous papers and other publications of the men who are still with us. In natural science we thus have a large mass of accumulated capital on which to base our future operations, along with an unlimited scope for further researches.

The older men among us know how much has been done within the lifetime of the present generation. When, as a young man, I began to look around for means of scientific education, there was no regular course of natural science in any of our colleges, though chemistry and physics were already taught in some of them. There were no collections in geology or natural history except the private cabinets of a few zealous workers. The Geological Survey of Canada had not then been thought of. There were no special schools of practical science, no scientific libraries, no scientific publications, and scarcely any printed information accessible. In these circumstances, when I proposed to devote myself to geological pursuits, I had to go abroad for means of training not then equal to that which can now be obtained in many of our Canadian colleges. Nor at that time were there public employments in this country to which a young geologist or naturalist could aspire. It is true this was more than forty years ago, but in looking back it would seem but as yesterday, were not these years marked by the work that has been done, the mass of material accumulated, and the scientific institutions established within that time. Those who began their scientific work in these circumstances may be excused for taking somewhat hopeful views as to the future.

Perhaps at present the danger is that we may be content to remain in the position we have reached, without attempting anything farther; and however inconsistent this may be, it is easy to combine the fear that any movement in advance may be rash and premature, with the self-satisfied belief that we have already advanced so far that little remains to be attained. We must bear in mind, however, that we have still much to do to place us on a level with most other countries. With the exception of the somewhat meagre grants to the Geological Survey and to the Meteorological Service, the Government of Canada gives nothing in aid of scientific research. What is done for scientific education by local societies must, under our system, be done by the separate Provinces, and is necessarily unequal and imperfect. Few large endowments have been given for scientific purposes. We have had no national society or association comparable with those in other countries. Yet we are looking forward to a great future. Wealth and population are moving rapidly onward, and the question is whether culture of the higher grade shall keep pace with the headlong rush of material progress. Various elements may enter into the answer of this question, but undoubtedly the formation of such a society as this is one of these of the utmost importance; and even though at the present time the project may fail of success, or be only partially effective (of which, however, I have no apprehension), it must be renewed till finally enabled to establish itself.

Another consideration bearing on this question is the vastness of the territory which we possess, and for the scientific development of which we have assumed the responsibility. Canada comprises one-half of the great North American continent, reaching for three thousand miles from east to west, and extending from south to north from the latitude of 42° to the Polar Sea. In this area we have representatives of all the geological formations from the Laurentian and Huronian, to which Canada has the honor of giving names, to the Post-pliocene and modern. Of some of these formations we have more magnificent developments than any other country. In zoology our land area extends from the home of the musk-ox on the north to that of the rattlesnake on the south, and we have perhaps the greatest area possessed by any country for the study of fresh-water animals. Our marine zoology includes that of the North Atlantic, the North Pacific and the Arctic Ocean. In botany we have the floras of the Atlantic and Pacific slopes, of the western plains and of the Arctic zone. In physical, astronomical and meteorological investigations we have the advantage of vast area, of varied climate and conditions; while these circumstances in themselves imply responsi-